

USPTO PATENT FULL-TEXT AND IMAGE DATABASE

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United States Patent
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Method for carrying out non-isotopic immunoassays, labeled analytes and kits for use in such assays

Abstract

A highly sensitive, immunoassay method for determining the amount of an analyte in a sample containing a known analyte in an unknown concentration is provided. Sample; a polypeptide-labeled analog of the analyte, an antibody specific for said analyte, a polypeptide partner capable of non-covalently binding with the polypeptide-labeled analyte to form a complex having catalytic activity, and a substrate capable of being converted to a **reporter molecule** by the catalytic activity of said complex are brought together in a medium. The polypeptide-labeled analyte analog is capable of competitively binding to the antibody and the polypeptide partner, the antibody inhibiting the formation of a catalytically active complex in the absence of analyte, and the concentrations of the antibody, polypeptide partner and polypeptide-labeled analyte are such as to cause varying amounts of analyte to be directly related to the conversion of the substrate to the **reporter molecule**. Conversion of the substrate to the **reporter molecule** is then determined, and compared to conversions of substrate to **reporter molecule** obtained with known concentrations of the analyte.

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